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RAMA LED LUMINAIRE



INSTALLATION & USER'S MANUAL

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RAMA LED Luminaire Installation & User's Manual

IMPORTANT INFORMATION

Warnings and Notices

When using electrical equipment, basic safety precautions should always be followed including the following:

a. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**
b. Do not use outdoors.
c. Do not mount near gas or electric heaters.
d. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
e. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
f. Do not use this equipment for other than intended use.
g. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING: Refer to National Electrical Codes and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel.

WARNING: This equipment is intended for installation in accordance with the National Electric Code?and local regulations. It is also intended for installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

Additional Resources for DMX512

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), "Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition" (ISBN: 9780955703522). USITT Contact Information:

USITT
315 South Crouse Avenue, Suite 200
Syracuse, NY 13210-1844
Phone: 1.800.938.7488 or 1.315.463.6463
www.usitt.org

Philips Selecon Three Year Warranty

Philips Selecon offers a three year limited warranty of its luminaires against defects in materials or workmanship from the date of delivery. A copy of Philips Selecon three year limited warranty containing specific terms and conditions can be obtained by contacting your local Philips Selecon office.

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PREFACE

1. About this Manual

The document provides installation and operation instructions for the following products:

- **RAMA LED Luminaire 3100K**
- **RAMA LED Luminaire 5600K**

Please read all instructions before installing or using this product. *Retain this manual for future reference*. Additional product information and descriptions may be found in the product specification sheet.

Note: The RAMA LED Luminaire is universal voltage 100 to 240 VAC (auto-ranging).

2. Included Items



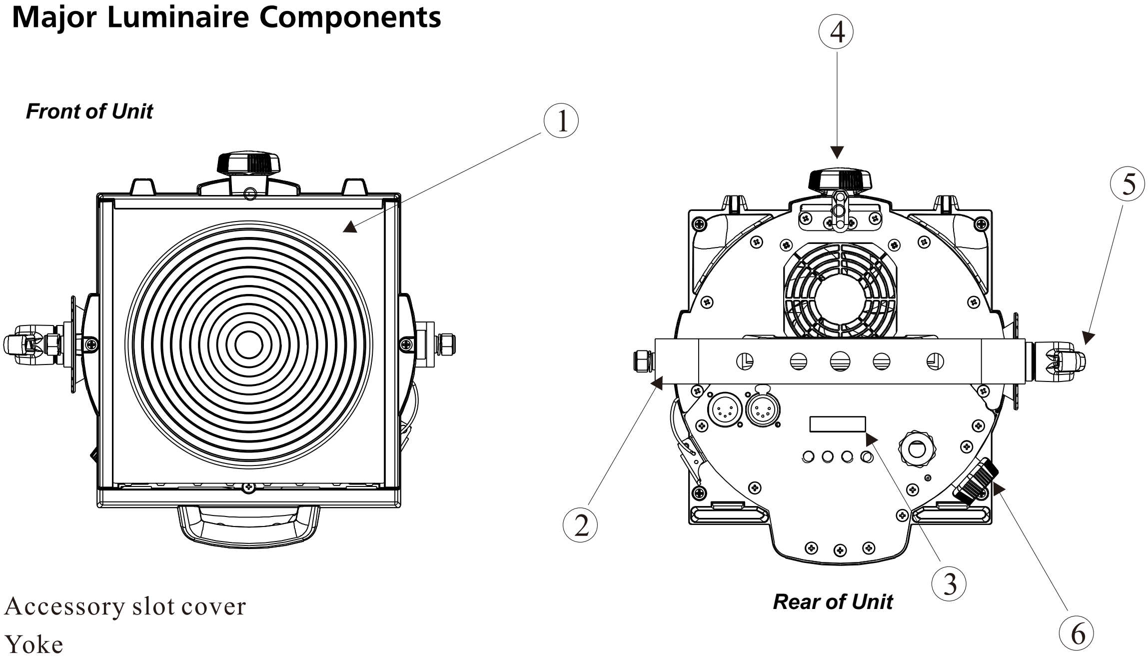
Each RAMA LED Luminaire includes the following items:

- RAMA LED Luminaire
- Installation and User's Manual(*this document*)
- Colourframe Accessory
- M12 yoke nut and bolt

RAMA LED LUMINAIRE OVERVIEW

1. RAMA LED Luminaire Components

Major Luminaire Components



1) Accessory slot cover
2) Yoke
3) LCD Display Menu System (see "LCD Display / Menu System"on Page 5 for more information)
4) Safety Cable Locking Knob
5)Tilt lock-off knob
6) Zooming Knob

Figure 1: RAMA LED Luminaire Components

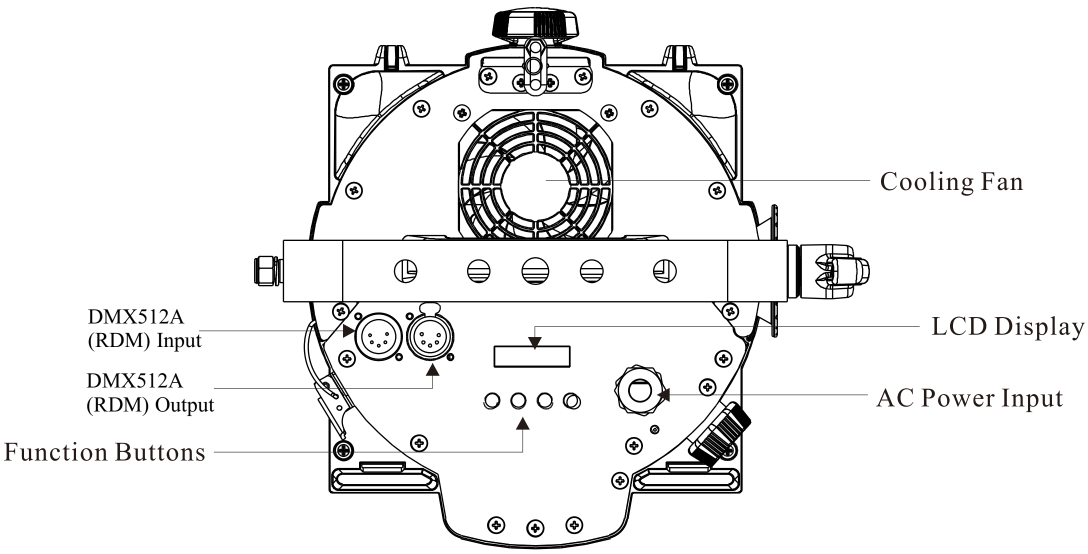
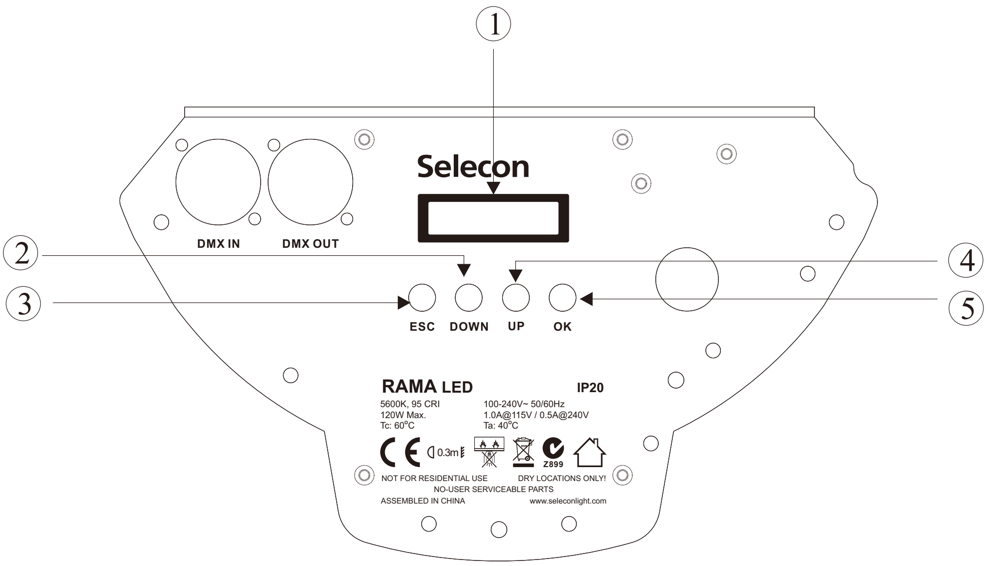


Figure 2: RAMA LED Luminaire Components - Rear View

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LCD Display / Menu System



1) LCD Display(Menu System)
2) DOWN Button
3) ESC Button
4) UP Button
5) OK Button

Figure 3: LCD Display & Menu System

Note: For Menu operation and programming details, refer to "LCD Display and Menu System" on page 8.

INSTALLATION AND SET UP

1. Power Requirements

The RAMA LED Luminaire operates on AC input voltages from 100 to 240 VAC.

WARNING! This luminaire does not contain an ON/OFF switch. Always disconnect power input cable to completely remove power from luminaire when not in use.

AC Power Operation

When connected to an AC source, the luminaire operates on 100 to 240 volts AC (+/- 10%, auto-ranging). The luminaire contains an auto-ranging power supply. Each luminaire can draw up to 120 Watts.

Table 1: RAMA LED Luminaire Voltage (VAC) vs. Current*

Voltage (AC)	Total Current (A)	Voltage (AC)	Total Current (A)
100	1.20	180	0.67
110	1.09	190	0.63
120	1.00	200	0.60
130	0.92	210	0.57
140	0.85	220	0.54
150	0.80	230	0.52
160	0.75	240	0.50
170	0.70		

2. Connecting Power

Luminaires can be powered in the following way:

- Direct connection to a AC power source using an AC input cable.

CAUTION: In the event the AC input cable of this luminaire is damaged, it must be replaced, by a suitably qualified technician, with an approved cable through an Authorized Philips Selecon Dealer or Service Center.

3. Connecting to the DMX512 Network

Basic DMX512 installation consists of connecting multiple RAMA LED Luminaires together (up to 32 luminaires) in "daisy-chain" fashion. A cable runs from the control console (or DMX512 control source) to the DMX connector on the first RAMA LED Luminaire. Another cable runs from the other DMX connector on the first unit to a DMX connector on the next RAMA LED Luminaire (or DMX512 device to be controlled).

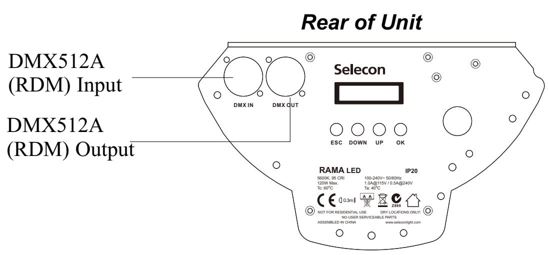
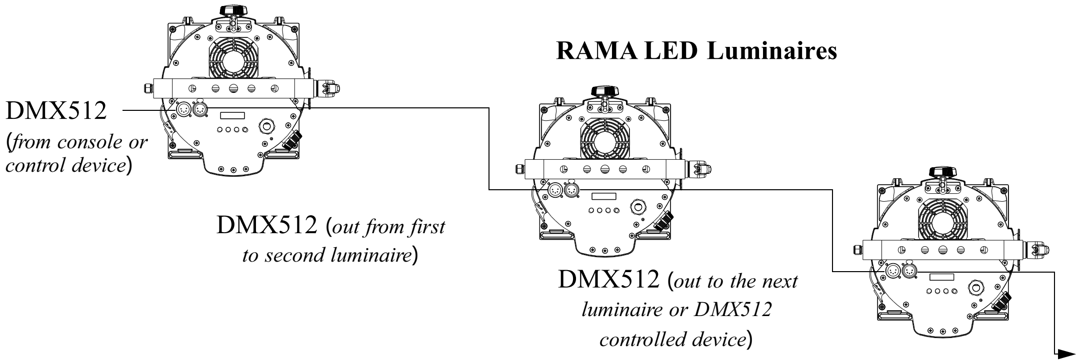


Figure 4: RAMA LED Luminaire DMX512 Input / Output Connections

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Note: For more information on DMX512 networking and systems, refer to "Additional Resources for DMX512" on page 1. For RAMA LED Luminaire DMX Mapping, refer to "DMX CONTROL" on page 15.



DMX512 Connections

DMX512 Signal	XLR Pin
Common (Drain)	1
DMX512 -	2
DMX512 +	3

Note: Remaining pins on each connector are not used.

Figure 5: RAMA LED Luminaire - DMX512 Connections

4. Rigging Luminaire

The RAMA LED Luminaire is provided with an adjustable yoke assembly to assist in balancing.

The yoke is easily attached and detached from the luminaire as required. These yokes are designed to accept a variety of mounting hooks, clamps, etc. for hanging applications. Refer to **Figure 6** for additional information. *Note, the bottom of the luminaire must be free and clear of any objects (i.e.,scenery) to allow for proper airflow*

Simply attach hook, clamp, etc. to the RAMA LED Luminaire yoke assembly in the M13 hole.

Note: Mounting hooks, clamps, etc. are sold separately or by others. For available mounting accessories refer to "Accessories" on page 3.

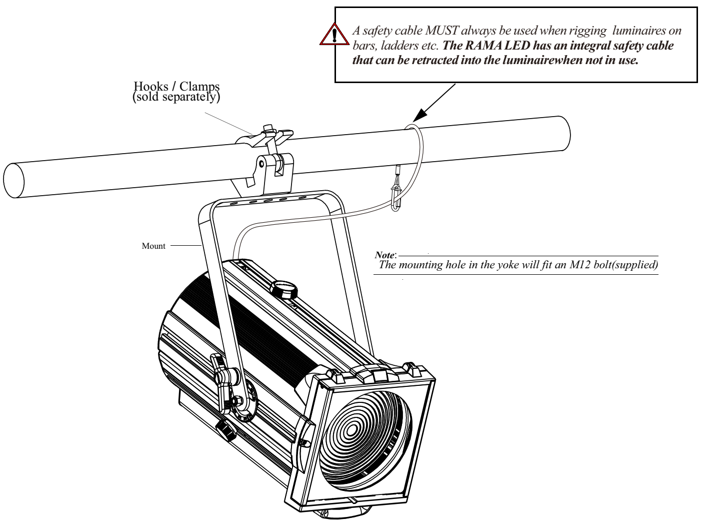
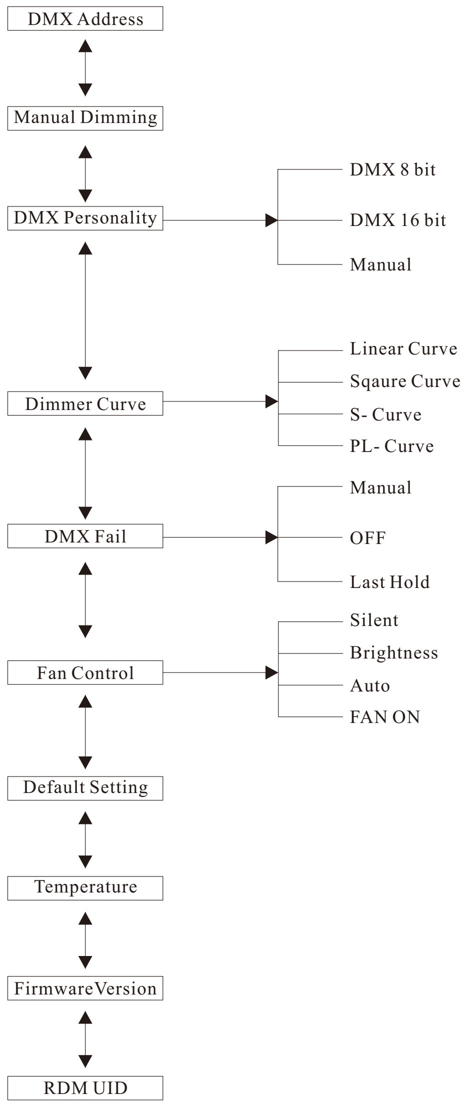


Figure 6: Rigging Luminaire - Hanging Applications

OPERATION AND PROGRAMMING

1. Menu System



2. LCD Display and Menu System Operation

The LCD Display Menu system consists of several categories. Use the Menu Buttons to access and make changes to the menu items. When the desired menu item is reached, press the desired Menu Button to display the menu options and to navigate and configure the menu options as required.

To navigate and access menu settings/selections:

Step 1. Make sure the luminaire is powered and turned on.

Step 2. Press the desired button to access menu categories.

Step 3. Use UP | DOWN arrow buttons to navigate through the various options and settings.

Step 4. Make changes as desired.

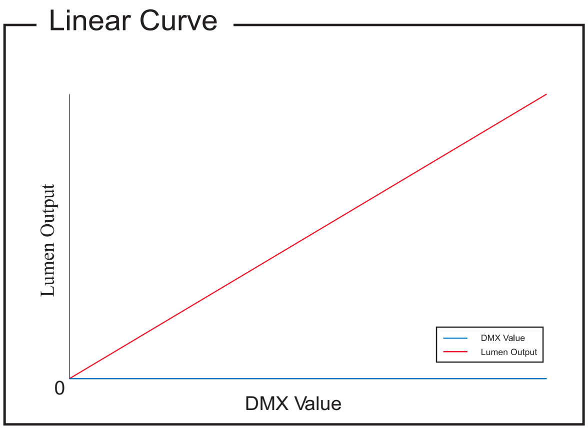
Step 5. Press CHECK MARK (OK) button to accept changes.

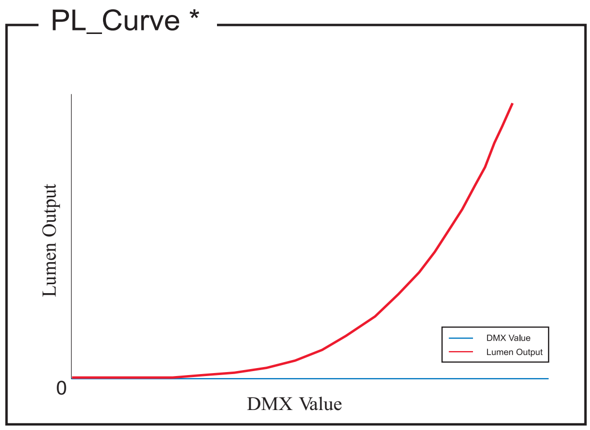
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3. Dimming Curve Selection

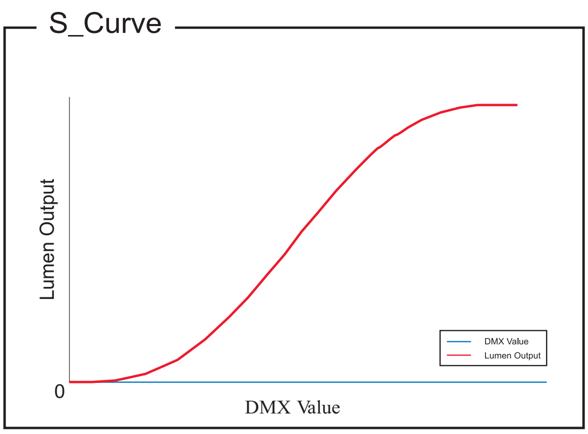
Users are able to select one of four dimming curves:

- Linear Curve
- PL_Curve
- S_Curve
- Square Curve





*PL Curve follows the dimming curve of Philips Selecon PL series LED luminaires.



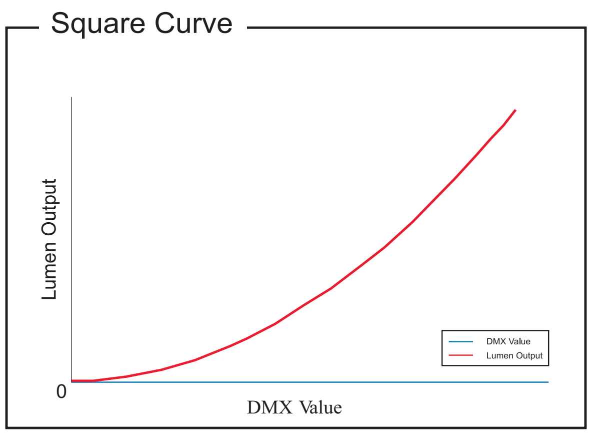


Figure 7: RAMA LED Luminaire Dimmer Curves

DMX CONTROL

This section contains information for operating the luminaire using DMX control in 8 Bit mode and 16 Bit modes For Menu options and detailed information, see "LCD Display and Menu System" on page 9.

Note: These tables assume a DMX start address of 1. When a different starting address is used, this address becomes channel 1 function and the other functions follow in sequence.

1. 8 Bit Mode

Table 2 provides DMX channel mapping of all DMX512 control values when the RAMA LED Luminaire is in 8 Bit mode (as set by the luminaire’s menu system).

Table 2: RAMA LED Luminaire DMX Channel Mapping (8 Bit Mode)

DMX	Parameter	DMX Range	Range%	Defaults	Description
1	LED Intensity	0-255	0-100%	0	LED Intensity

2. 16 Bit Mode

Table 3 provides DMX channel mapping of all DMX512 control values when the RAMA LED Luminaire is in 16 Bit mode (as set by the luminaire’s menu system).

Table 3: RAMA LED Luminaire DMX Channel Mapping (16 Bit Mode)

DMX	Parameter	DMX Range	Range%	Defaults	Description
1	Intensity - High	0-255	0-100%	0	Intensity Coarse
2	Intensity - Low	0-255	0-100%	0	Intensity Fine

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3. RAMA LED Luminaire RDM Parameter IDs

The following tables outline and describe all the RDM parameters IDs associated with RAMA LED Luminaires.

Table 4, "RAMA LED Luminaire RDM Product Parameter IDs"
Table 5, "RAMA LED Luminaire RDM UID"
Table 6, "RAMA LED Luminaire RDM Parameter IDs,"on page 12
Table 7, "RAMA LED Luminaire RDM Manufacturer Status IDs,"on page 13
Table 8, "RAMA LED Luminaire RDM Manufacturer Specific PIDs for Root Device,"on page14

Table 4: RAMA LED Luminaire RDM Product Parameters IDs

Model ID	Manufacturer	Model Description	Product Category
0x0108	Philips Selecon	RAMA-LED	0x0509

Table 5: RAMA LED Luminaire RDM UID

UID					
MSB of ESTA 50H	LSB of ESTA 53H	MSB of 0x01.	LSB of 0x08.	MSB of Unique Seq.	LSB of Unique Seq.

Table 6: RAMA LED Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
		Category - Network Management			
		DISC_UNIQUE_BRANCH	0x0001		■
		DISC_MUTE	0x0002		■
		DISC_UN_MUTE	0x0003		■
■		PROXIED_DEVICES	0x0010		
■		PROXIED_DEVICES_COUNT	0x0011		
■	■	COMMS_STATUS	0x0015		
		Category - Status Collection			
■		QUEUED_MESSAGE	0x0020		■
■		STATUS_MESSAGES	0x0030		■
■		STATUS_ID_DESCRIPTION	0x0031		■
	■	CLEAR_STATUS_ID	0x0032		■
■	■	SUB_DEVICE_STATUS_REPORT_THRESHOLD	0x0033		
		Category - RDM Information			
■		SUPPORTED_PARAMETERS	0x0050	*Support required only if supporting Parameters beyond the minimum required set.*	■
■		PARAMETER_DESCRIPTION	0x0051	*Support required for Manufacturer-Specific PIDs exposed in SUPPORTED_ PARAMETERS message.*	■
		Category - Product Information			
■		DEVICE_INFO	0x0060		■
■		PRODUCT_DETAIL_ID_LIST	0x0070		
■		DEVICE_MODEL_DESCRIPTION	0x0080		■
■		MANUFACTURER_LABEL	0x0081		■
■	■	DEVICE_LABEL	0x0082		■
■	■	FACTORY_DEFAULTS	0x0090		■
■		LANGUAGE_CAPABILITIES	0x00A0		
■	■	LANGUAGE	0x00B0		
■		SOFTWARE_VERSION_LABEL	0x00C0		■
■		BOOT_SOFTWARE_VERSION_ID	0x00C1		
■		BOOT_SOFTWARE_VERSION_LABEL	0x00C2		
		Category - DMX512 Setup			
■	■	DMX_PERSONALITY	0x00E0		■
■		DMX_PERSONALITY_DESCRIPTION	0x00E1		■
■	■	DMX_START_ADDRESS	0x00F0	*Required if device uses a DMX Slot*	■
■		SLOT_INFO	0x0120		■
■		SLOT_DESCRIPTION	0x0121		■
■		DEFAULT_SLOT_VALUE	0x0122		
		Category - Sensors 0x02xx			
■		SENSOR_DEFINITION	0x0200		■
■	■	SENSOR_VALUE	0x0201		■

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Table 6: RAMA LED Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
	■	RECORD_SENSORS	0x0202		
Category - Dimmer Settings 0x03xx - FUTURE USE					
Category - Power / Lamp Settings 0x04xx					
■	■	DEVICE_HOURS	0x0400		
■	■	LAMP_HOURS	0x0401		
■	■	LAMP_STRIKES	0x0402		
■	■	LAMP_STATE	0x0403		
■	■	LAMP_ON_MODE	0x0404		
■	■	DEVICE_POWER_CYCLES	0x0405		
Category - Display Settings 0x05xx					
■	■	DISPLAY_INVERT	0x0500		■
■	■	DISPLAY_LEVEL	0x0501		
Category - Configuration 0x06xx					
■	■	PAN_INVERT	0x0600		
■	■	TILT_INVERT	0x0601		
■	■	PAN_TILT_SWAP	0x0602		
■	■	REAL_TIME_CLOCK	0x0603		
Category - Control 0x10xx					
■	■	IDENTIFY_DEVICE	0x1000		■
	■	RESET_DEVICE	0x1001		
■	■	POWER_STATE	0x1010		
■	■	PERFORM_SELFTEST	0x1020		
■		SELF_TEST_DESCRIPTION	0x1021		
	■	CAPTURE_PRESET	0x1030		
■	■	PRESET_PLAYBACK	0x1031		

Table 7: RAMA LED Luminaire RDM Manufacturer Status IDs

Manufacturer Specific messages are in the range of 0x8000 - 0xFFDF. Each Manufacturer-specific Status ID shall have a unique meaning, which shall be consistent across all products having a given Manufacturer ID. See Table B-2, ANSI E1.20-2010.

Status ID Message	Value	Data Value 1	Data Value 2	Status ID Description
8100H		00H	00H	ALL OK

Table 8: RAMA LED Luminaire RDM Manufacturer Specific PIDs for Root Device

Get Allowed	Set Allowed	RDM Parameter IDs	Type	Length	Unit	Prefix	Min	Max	Default	Description
Category - Manufacturer Defined PIDs - Range is 0x8000-0xffdf (See ANSI E1.20-2010 Standard, Table A-3)										
■	■	8A00H	U8	1	None	None	0	100	100	DIMMER
■	■	8AA1H	U8	1	None	None	0	3	0	Dimming Curve
■	■	8A0CH	U8	1	None	None	0	3	0	DMX FAIL MODE
■	■	8A97H	U8	1	None	None	0	1	0	Fan AUTO/OFF Setup

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CLEANING AND CARE

WARNING! All cleaning should be performed with power completely removed from the luminaire. Never remove protective covers when luminaire is powered. Wear appropriate protective eye wear and gloves when cleaning the fixture. All service and maintenance, other than described herein, should be performed by a suitably qualified technician or Authorized Service Center.

1. Special Cleaning and Care Instructions

Being a solid-state luminaire, and unlike most luminaires, the RAMA LED Luminaire requires very little routine maintenance by the user. This section covers portions of the luminaire that can be removed for cleaning. Take special care when it comes to cleaning the condensor lens assembly. Additional care needs to be taken with the condensor lens because it has an optical coating that is easy to scratch and damage.

The following is a list of cleaning materials required to care for your RAMA LED Luminaire:

- Lint free lens tissue
- Lint or powder free gloves
- Reagent grade isopropyl alcohol*
- A mild soap solution.

Note: *Reagent grade isopropyl alcohol is good to use on the RAMA LED Luminaire condensor optics with anti-reflection coatings.

If the lens is still dirty after using isopropyl alcohol, for instance if fingerprints or oil is just redistributed and not cleaned off the optic, then a mild soap and water solution can be used to gently wash the lens. Repeat the cleaning with isopropyl alcohol to eliminate streaks and soap residue.

WARNING! Under no circumstances should ammonia-based cleaners, acetone, or other harsh solvents be used on or near the RAMA LED Luminaire. These types of cleaners or solvents can permanently damage the optics or housings of the luminaire.

If you have any questions regarding the use or care of your RAMA LED Luminaire, please contact Philips Selecon technical support or your local Authorized Dealer.

2. Front Lens Cleaning

To clean the front lens:

Step 1. Disconnect luminaire from power and allow to cool completely.

Step 2. Apply a small amount of reagent gradeisopropyl alcohol to lint-free lens tissue.

Step 3. Wipe all debris, dirt, fingerprints, etc. from lens.

Step 4. Using a second lint-free lens tissue, wipe off any alcohol residue.

3. Service and Maintenance

For all other service and maintenance issues, please contact your local Philips Selecon office or an Authorized Service Center.

WARNING! Disassembly (other than as described herein), alterations, unauthorized service, etc. will void the product warranty. Contact your local Philips Selecon office or an Authorized Service Center for technical support and service.

TECHNICAL SPECIFICATIONS

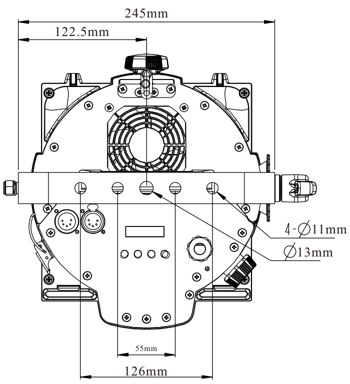
1. RAMA LED Luminaire Operational Specifications

Source:	Philips Luxeon Rebel LED
Beam Angle:	7-50 Degrees
Light Output:	> 4100 lumens
Color Temperature:	5600K or 3100K (depending on model)
Input Voltage (AC):	100V to 240V (+/- 10%, auto-ranging)
Current (AC):	1.2 Amps (100V) / 0.5 Amps (240V)
Frequency:	50/60Hz
Control Protocols:	DMX512 (1990) / DMX512A (RDM) / On-Board Menu
Ambient Temperature:	-20 to 40 Degrees C (-4 to 104 Degrees F)
Humidity:	5%-95% Non condensing
Cooling:	Forced Air Cooling
Weight:	16.72 lbs (7.6 kg) - Luminaire only (no accessories)
Housing:	Extruded aluminum, sheet metal, high impact resistant engineering plastic moulding
Compliance:	CE Marked and C-Tick (International models)
IP Rating:	IP20

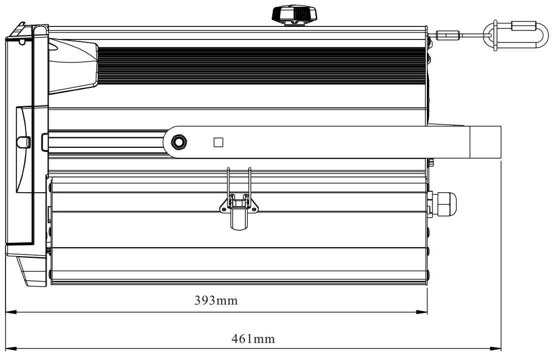
Note: Common model specifications shown. For specific model specifications, features, and accessories, refer to the product specification sheet.

2. RAMA LED Luminaire Dimensions

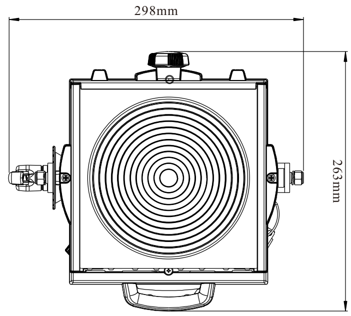
Rear



Side



Front



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Note:

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